



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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JUN 30 1998
"RCRA/TSCA"
"Permits Team"

June 26, 1998

CERTIFIED MAIL: P125 952 689

Mr. Douglas Hotchkiss
Port of Seattle
P.O. Box 1209
Seattle, Wa. 98111

Dear Mr. Hotchkiss:

RE: Independent Remedial Action Report for the Port of Seattle Terminal 91 Facility.

Thank you for the Independent Remedial Action Report you submitted on April 17, 1997 to the Department of Ecology (Ecology).

Ecology's Hazardous Waste and Toxics Reduction Program has reviewed the following information regarding the Port of Seattle Terminal 91 facility located at 2001 West Garfield Street West, Seattle, Washington.

1. *Terminal 91 Baseline Report, prepared by Kennedy/Jenks Consultants, April 1997 for the Port of Seattle*
2. Site visit on December 18, 1997.

This remedial action report is "incomplete", according to the guidelines under the program that it was submitted under. Please refer to the "Request for Review" form that was submitted along with the report for questions on submittals to Ecology under this program.

Based on the review of this document and meetings we have had with the Port of Seattle (Port) on December 18, 1997, January 23, 1998, March 20, 1998 and April 10, 1998, Ecology has determined that additional remedial actions are required at your site.

Under the Resource Conservation and Recovery Act (RCRA), the Port is responsible for corrective action at the Terminal 91 facility. Ecology feels this needs to be accomplished and is using Model Toxics Control Act (MTCA) as the process. Ecology views the submittal of the Baseline Report as a starting point to make decisions as to what has been adequately done and what needs further review and investigation at this facility to meet the corrective action requirements under RCRA and MTCA. The Port does need to complete its corrective action responsibilities either as a voluntary cleanup or under an order.

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Attachment 1 to this letter is a summary of Solid Waste Management Areas (SWMUs), Areas of Concern (AOCs) and New Discoveries broken into the following categories:

- **LIST OF ABOVEGROUND SWMUS/AOCs THAT HAVE BEEN ADDRESSED THROUGH CLEANING, REMOVAL OR BUILDING DEMOLITION AND THEREFORE NO FURTHER ACTION IS REQUIRED.** The Baseline Report has been accepted as a certified statement by the Port that these aboveground activities have occurred and these areas no longer are a threat to human health and the environment.
- **LIST OF SWMUS/AOC/NEW DISCOVERIES THAT LACK ENOUGH INFORMATION TO MAKE A DETERMINATION.** Insufficient information has been provided. Provide actual contractors reports for Ecology's review for those investigations that have been conducted. Review of the actual consultant reports is necessary to have as much information as possible about field decisions, rationale for sampling locations, sampling methodology, verifying that the analytical detection limit quantifies the cleanup standards, rational for the selection of cleanup standards, compliance monitoring, and if any problems were encountered. The Baseline Report also states that for some SWMUs/AOCs contamination was found and no investigation or remediation has been conducted.

Attachment 2 is additional comments on the Baseline Report. Attachment 3 is the additional list of reports that are not in Ecology's Northwest Regional Office files that will need to be reviewed.

Please be aware that any future submittals will need to be submitted under the Voluntary Cleanup Program (VCP), which has replaced the Independent Remedial Action Program (IRAP) effective October 1, 1997. Ecology will no longer accept submittals under the IRAP process. The other options for the Port is to enter into negotiations for an Agreed Order or a Consent Decree.

If the Port elects to continue remediation of the facility as a voluntary cleanup action, Ecology has some of the following expectations:

- An annual status report from the Port, in letter form, that indicates what has been done over the last year and what is planned for the up coming year. This letter does not substitute for actual contractor reports of cleanup activities. These reports will need to be review by Ecology to make determinations of adequacy. The Port can at anytime under the VCP, ask for additional consultation of cleanup activities by Ecology during all phases of cleanup activities. This annual report can also serve as an acknowledgement of new discoveries.
- SWMUs/AOC/New Discoveries will be investigated individually unless they are in close proximity to each other or have co-mingled contaminate plumes. Where there is know or suspected contamination, investigations will be conducted as outlined in MTCA (WAC 173-340-350).
- A "no further action" can not be given to those SWMUs/AOC/s/New Discoveries that require a notification in a restrictive covenant until a restrictive covenant is in place.

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- There needs to be a consistent use of cleanup standards for soils, a rationale on how those standards are protective of the groundwater and surface water pathways, and compliance monitoring (WAC 173-340-410). The soil to groundwater to surface water pathway needs to be evaluated before the selection of appropriate cleanup standards for both soil and groundwater. This will involve a site characterization of the groundwater and the relationship between groundwater and surface water and a complete analysis of applicable or relevant and appropriate requirements as per WAC 173-340-720.
- Underground storage tank requirements as per WAC 173-360 will continue to be provided to Ecology's UST/LUST Program, but all remediation activities will be review by the Hazardous Waste and Toxics Reduction Program.
- Work with Ecology on streamlining the VCP submittal forms for this site.

Please note that because your actions were not, or will not be conducted under a consent decree with Ecology, this letter is written pursuant to RCW 70.105D.030(1)(I) and does not constitute a settlement by the state under RCW 70.105D.040(4) and is not binding on Ecology.

The opinions presented by Ecology in this letter are made only with respect to the information provided in the report and site visit listed above. This opinion is only applicable to the specified site (or portion of the site) and may not be used to justify action at any other site (or portion of the site) nor any other properties owned or operated by the Port of Seattle.

The State, Ecology, and its officers and employees are immune from all liability and no cause of action of any nature may arise from any act or omission in providing this determination.

Ecology and our legal counsel are available to meet and discuss the process and expectations for Terminal 91 in more detail on the following dates: July 7 (pm) or July 14 (pm). Please call me at (425) 649-7026 to schedule the meeting on the date that best fits your schedule.

Sincerely,

Sally Safioles

Sally Safioles

Hazardous Waste and Toxics Reduction Program

cc: Julie Sellick, Ecology-NWRO
Galen Tritt, Ecology-NWRO
Diane Richardson, EPA Region 10
Jack Boller, EPA Region 10
Tanya Barnett, Office of the Attorney General Office
Susan Roth, Roth Consulting

ATTACHMENT 1

LIST OF ABOVEGROUND SWMUS/AOCS THAT HAVE BEEN ADDRESSED THROUGH CLEANING, REMOVAL OR BUILDING DEMOLITION AND THEREFORE NO FURTHER ACTION IS REQUIRED AT THESE SITES

SWMU 31	Liquid Hydrocarbon Recovery System
SWMU 32	Oil Blending Station
SWMU 34	Waste Refrigeration Oil Tank
SWMU 35	Storage Area Outside Building W-47
SWMU 36	Storage Inside Building W-47
SWMU 37	Car Wash Station
SWMU 38	Paint and Motor Oil Waste Building C-154
SWMU 39	Paint Filter Waste Storage Areas
SWMU 41	Waste Stored Beneath Viaduct
SWMU 42	Drums Storage near Lake Jacobs
SWMU 43	Berth Stations and Valve Vaults
SWMU 44	Waste Oil Storage Shed
AOC 3	Old Berth Pipelines
AOC 4	Leaking Motor
AOC 5	PCB Transformer Pad
AOC 16	Inactive Transformer

LIST OF SWMUS/AOCS/NEW DISCOVERIES THAT LACK ENOUGH INFORMATION TO MAKE A DETERMINATION

SWMU 30	Pipeline Leak
SWMU 33	Solid Waste Yard
SWMU 40	Short Fill
SWMU 45	Storm Drain at Northern End of Terminal 91
SWMU 46	Two Storm Drains at Center of Terminal 91
SWMU 47	Abandoned Oil/Water Separator
SWMU 48	Transfer Pipeline
AOC 2	UST
AOC 6	Hydrocarbon Contamination, Building 40
AOC 7	Concrete Aprons
AOC 8	Storm Drain Contaminated Soil
AOC 9	Contaminated Soil Northwest Corner of Pier 91
AOC 10	Triangular Area
AOC 11	Old Tank Farm
1987 and 1989	City Ice Facilities Expansion
1990	PNO Pipeline Break South of Building T-38, Pier 91
1991	Soil Investigations for Pier 90 Chill Facility
1991	PNO Pipeline Break on south End of Pier 91
1992	Triangular Area Investigations
1994	DAS Building Site Investigation
1994	DAS Utility Trench Investigation
1994	Transformer Pad Concrete and Soil Sampling
1995/1996	PNO Pipeline Alignment Soil Remediation, Pier 90
1996	PNO Pipeline Break

ATTACHMENT 2

COMMENTS ON BASELINE REPORT

Below are some specific comments on the Baseline Report where reports were not referenced or it is difficult to ascertain the extent of the remedial activities. These specific comments are not all inclusive of the issues at this facility. It is Ecology's intention to review all the actual contractor reports for remedial activities at this site that are mentioned in the Baseline Report.

Page 1-5, 1.2.1.2, SCS 1989: The baseline report indicates that there was past releases but sampling indicated no exceedence. How were the sampling location selected?

Page 1-5, 1.2.1.3, Port of Seattle 1989: Results are not given in the appendix. Insufficient information to make a determination for Tanks T-91D, T-91E, T-91F, T-91G, and T-91N. Provide the report(s) for review.

Page 1-6, 1.2.1.7, POS Tank Decommissioning 1993: REAL 1993 report is not in appendix. Insufficient information to make a determination. Provide the report for review.

Page 1-6, 1.2.1.8, Columbia Environmental 1995: The report indicates that the groundwater standard was exceeded but no additional groundwater monitoring was conducted. This area needs additional groundwater investigation. It is also unclear if any soils were removed.

Page 1-8, 1.2.2, Short Fill Monitoring Program: The Port needs to verify that the conditions of the Order for this project has been satisfied. Information on the Short Fill will need to be included in a restrictive covenant.

Page 1-9, 1.2.4, 1989 City Ice Facilities Expansion: No report is referenced. Insufficient information to make a determination. Provide the report(s) for review.

Page 1-9, 1.2.5, 1989 PNO Pipeline Break Near Lake Jacobs: This area is still being monitored and has not been fully remediated. What are the intentions for this area?

Page 1-11, 1.2.6, 1990 PNO Pipeline Break South of Building T-38, Pier 91: No report is referenced. Insufficient information to make a determination. Provide the report for review.

Page 1-11, 1.2.7, 1991 Soil Investigations for Pier 90 Chill Facility: It is stated that in the Hart Crowser 1991 report, soil were screened soils using the "Fuel Concentrations Estimate Procedure". Provide this methodology for Ecology review. Port of Seattle 1992 report or letter

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is not in the appendix. Insufficient information has been provided to make a determination. Provide the reports for review.

Page 1-12, 1.2.8, 1991 PNO Pipeline Break on South End of Pier 91: No report is referenced. Insufficient information has been provided to make a determination. Provide the report(s) for review. It appears from the Baseline Report that potentially soils that exceed MTCA levels were left in place. If this is so, why?

Page 1-13, 1.2.10, 1994 DAS Building Site Investigation: It appears that a number of borings were drilled and some soil samples exceeded MTCA standards and some soils were removed. It would have been beneficial to have this information on Figure 5 (Location of Remedial Activities).

Page 1-14, 1.2.11, 1994 DAS Utility Trench Investigation: The report seems to indicate that in some areas MTCA standards were exceeded but there does not appear to be an explanation of what was done with this information. Was soil removed or left in place? The contractors report will need to be reviewed.

Page 1-15, 1.2.14, 1996 PNO Pipeline Break: No report is referenced. Insufficient information has been provided to make a determination. Provide the report(s) for review. Were samples collected?

Page 1-16, 1.3, Selection of Cleanup Standards: The Baseline Report has not been consistent in the use of cleanup standards selected for soils, has not provided a rationale on how those standards are protective of the groundwater and surface water pathways, and has not provided compliance monitoring. The selection of MTCA Method B Surface Water Standards for groundwater is premature. A complete analysis of applicable or relevant and appropriate requirements has not been performed as per WAC 173-340-720. The soil to groundwater to surface water pathway needs to be evaluated before the selection of appropriate cleanup standards for both soil and groundwater. This will involve a site characterization of the groundwater and the relationship between groundwater and surface water. Remedial activities to date can only be considered as "interim actions" until the groundwater and surface waters pathway has been addressed; then a final remedy can be selected.

Page 1-19, 1.6, Sampling and Analysis: The Baseline Report acknowledges additional information exist and is available. Some of these will need to be review to make a determination.

Page 2-8, 2.4.1.16, SWMU 45: The Baseline Report indicates that oil was observed in the storm drain and appeared to be coming from the Burlington Northern Railroad's Balmer Yard. Was any remedial activities conducted?

Page 2-9. 2.4.1.18, SWMU 47-Abandoned Oil/Water Separator: Are there any intentions of using this oil/water separator in the future?

Page 2-10, 2.4.2.5, AOC 6 Hydrocarbon Contamination, Building W-40: No report is referenced. It is unclear if there was any sampling. Is the source known? Area needs further investigation.

Page 2-10, 2.4.2.7, AOC 8 Storm Drain Contaminated Soil: Were there any samples collected or was the presence of hydrocarbon based on odor? Area needs further investigations.

Page 2-10, 2.4.2.8, AOC 9, Contaminated Soil Northwest Corner of Pier 91: Were any samples collected? Area needs further investigations.

ATTACHMENT 3

ADDITIONAL LIST OF REPORTS THAT NEED TO BE REVIEWED THAT ARE NOT IN ECOLOGY'S NORTHWEST REGIONAL OFFICE FILES

AOC 2—UST/LUST

Port of Seattle. 1989. File notes and maps regarding assessment of subsurface conditions at Terminal 91 tanks T-91 D, T-91 E, T-91 F, T-91 G, and T-91 N.

TANK I

Port of Seattle. 1990. Record of Closure of Underground Storage Tank T-91I. 2 April 1990.

TANK K

Residential Environmental Analytical Laboratories. 1993. Telefax to Port of Seattle regarding Pier 91 Heating Oil Tank (T-91 K) soil sampling during tank removal. 24 June 1993.

TANK N

GeoEngineers Incorporated. 1987a. Report of Geotechnical Engineering Services, Proposed Facilities Expansion, Seattle, Washington. Prepared for City Ice and Cold Storage Company. 10 February 1987.

GeoEngineers Incorporated. 1987b. Summary Letter, Monitor Well Installation, Proposed Facility Expansion, Seattle, Washington. Prepared for City Ice and Cold Storage Company. 26 June 1987

GeoEngineers Incorporated. 1987c. Summary of Supplemental Monitor Well Measurements, Proposed Facility Expansion, Seattle, Washington. Prepared for City Ice and Cold Storage Company. 31 August 1987.

TANK T

Dames & Moore. 1993. Report of Geotechnical Investigation, Proposed Underground Storage Tank, Pier 91, Seattle, Washington. Prepared for Port of Seattle. 8 October 1993

Environmental Science & Engineering, Inc. 1992. Letter Report re Results of a Limited Subsurface Investigation at Terminal 91, Seattle, Washington. Prepared for Port of Seattle. 28 October 1992.

Port of Seattle. 1996. Memorandum to Kennedy/Jenks Consultants with attached grab groundwater laboratory analytical report from Tank T-91T excavation. 11 January 1996.

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TANK Z

Pacific Northern Geoscience. 1996a. Underground Storage Tank Decommissioning and Site Assessment Report, Port of Seattle, Pier 90. Prepared for Pacific Northern Oil. 4 January 1996.

AOC 6(?)—Building #40

GeoEngineers Incorporated. 1989. Report of Geotechnical Engineering Services, Proposed Cold Storage Warehouse and Fish Processing Facility, Pier 91, Seattle, Washington. Prepared for CITYICE Cold Storage Company. 2 November 1989.

SWMU 30/31—PNO Pipeline Break by Lake Jacobs

Converse GEES. 1989. Preliminary Hydrogeologic Assessment Report, Terminal 91 Facility, Seattle, Washington. Prepared for Pacific Northern Oil. 22 November 1989.

Hart Crowser, Inc. 1988. Data Report, Monitoring Well Installation and Physical Characterization of Berm -- Fill Material, Terminal 91. Prepared for Port of Seattle. 21 October 1988.

Hart Crowser, Inc. 1989. Letter re Oil Seepage Investigation, Short Fill Pond, Terminal 91. Prepared for Port of Seattle. 11 September 1989.

Pacific Northern Geoscience. 1996c. Draft 1995 Annual Progress Report, Interim Liquid Hydrocarbon Recovery System. 20 February 1996. [ECOLOGY HAS REPORT DATED MARCH 1, 1995]

SWMU 40—Short Fill Project

Pacific Groundwater Group and Converse Consultants NW. 1990. Revised Hydraulic and Transport Model, Terminal 91 Short Fill, Seattle, Washington. Prepared for Port of Seattle. 12 December 1990.

Section 1.2.7—1991 Soil Investigations for Pier 90 Chill Facility

Hart Crowser, Inc. 1991. Geotechnical Engineering Design Study, Chill Facility, Port of Seattle Pier 90 East, Seattle, Washington. Prepared for John Graham Associates. 13 November 1991.

Hong West & Associates. 1991. Geotechnical/Environmental Investigation Final Report, Pier 90 Chill Facility, Port of Seattle, Terminal 91, Seattle, Washington. Prepared for Port of Seattle. 9 May 1991.

Section 1.2.10—1994 DAS Building Site Investigation

Kennedy/Jenks Consultants. 1994a. Letter Report, Soil Sampling Activities - DAS Building Site, Terminal 91. Prepared for Port of Seattle. 9 February 1994.

Olympus Environmental, Inc. 1994. Soil Remediation Report, Port of Seattle, Terminal 91, Seattle, Washington. Prepared for Distribution and Auto Service, Inc. 8 April 1994.

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Section 1.2.11—1994 DAS Utility Trench Investigation

Kennedy/Jenks Consultants. 1994b. Utility Trench Investigation Report. Prepared for Port of Seattle. 28 March 1994.

Section 1.2.12—1994 Transformer Pad Concrete and Soil Sampling

Kennedy/Jenks Consultants. 1994c. Transmittal to Port of Seattle of Results of Concrete and Soil Sampling at Transformer Pad Near Building C-154. 22 December 1994.

Section 1.2.13—1995/1996 PNO Pipeline Alignment Soil Remediation, Pier 90

Pacific Northern Geoscience. 1995. Pier 90 Pipeline Alignment Soil Disposal. Prepared for Pacific Northern Inc. 14 November 1995.

Pacific Northern Geoscience. 1996b. Pipeline Alignment Soil Disposal, Pier 90, Seattle, Washington. Prepared for Pacific Northern Inc. 10 January 1996

Section 1.2.1.4-- 1990 PNO Pipeline Break

No report is reference for this